22. The device according to claim 19, wherein said power device is a bipolar diode, and wherein said active region has in plan view a substantially rectangular shape and is surrounded by said ring region; a peripheral portion of said active region being connected in a continuous way with said guard region, and said columnar structures moreover traversing said active region.

23. The device according to claim 19, wherein said power device is a bipolar diode, and wherein said active region has in plan view the shape of parallel strips, and is surrounded by said ring region; peripheral strips of said active region being connected to said guard region, and said columnar structures each traversing a respective one of said strips.

24. The device according to claim 19, wherein said power device is a MOS device, and said active region comprises a plurality of body regions, each formed at least partially inside a respective surface extension of said columnar structures; further comprising gate structures arranged between adjacent columnar regions, at least in part above said first top surface, and source regions of said second type of conductivity arranged inside said body regions.

25. A semiconductor structure, comprising:

a layer having a first conductivity, a first section having a first surface, and a second section contiguous with the first section and having a second surface that is offset from the first surface;

a first region having a second conductivity, disposed in the second section of the layer, and contiguous with the second surface; and

second regions having the second conductivity, disposed in the first region, contiguous with the second surface, and extending deeper into the layer than the first region.

26. The semiconductor structure of claim 25, further comprising:

a substrate having the first conductivity; and

wherein the layer comprises an epitaxial layer contiguous with the substrate.

27. The semiconductor structure of claim 25 wherein:

the first conductivity comprises an N-type conductivity; and

the second conductivity comprises a P-type conductivity.

28. The semiconductor structure of claim 25, further comprising a semiconductor device disposed in the first section of the layer.

29. The semiconductor structure of claim 25, further comprising:

wherein the first surface has a substantially planar first surface portion;

wherein the second surface has a substantially planar second surface portion that is substantially parallel to the first surface portion; and

a sidewall disposed in the layer and extending between and substantially normal to the first and second surface portions.

30. The semiconductor structure of claim 25 wherein each of the second regions has a respective tapered end disposed in the layer beyond the first region.

31. The semiconductor structure of claim 25, further comprising:

a substrate having the first conductivity;

wherein the layer comprises an epitaxial layer contiguous with the substrate; and

wherein each of the second regions has a respective tapered end disposed in the substrate.

32. The semiconductor structure of claim 25, further comprising a third region having the second conductivity, disposed in the first section of the layer, and contiguous with the first surface and the first region.

33. The semiconductor structure of claim 25, further comprising:

wherein the first region has a first dopant concentration; and

a third region having the second conductivity, disposed in the first section of the layer, contiguous with the first surface and the first region, and having a second dopant concentration that is greater than the first dopant concentration.

34. The semiconductor structure of claim 25, further comprising a contact region having the first conductivity, disposed in the second section of the layer separate from the first region, and contiguous with the second surface.

35. The semiconductor structure of claim 25, further comprising:

an anode region having the second conductivity, disposed in the first section of the layer, and contiguous with the first surface and the first region;

third regions having the second conductivity, disposed in the anode region, and extending deeper into the layer than the anode region; and

wherein the layer composes a cathode region.

36. The semiconductor structure of claim 25, further comprising:

a third region having the second conductivity, disposed in the first section of the layer, and contiguous with the first surface and the first region;

anode regions having the second conductivity, disposed in the first section of the layer separate from the third region, and contiguous with the first surface;

fourth regions each having the second conductivity, disposed in a respective one of the anode regions, and extending deeper into the layer than the respective anode region; and

wherein the layer composes a cathode region.

37. The semiconductor structure of claim 25, further comprising

a third region having the second conductivity, disposed in the first section of the layer, and contiguous with the first surface and the first region;

a transistor body region having the second conductivity, disposed in the first section of the layer, and contiguous with the first surface and with the third region;

a fourth region having the second conductivity, disposed in the third region, and extending deeper into the layer than the third region;